

Chemistry- X- Unit -6. Class - 33

Nomenclature of organic compounds and isomerism

The element ' Carbon '

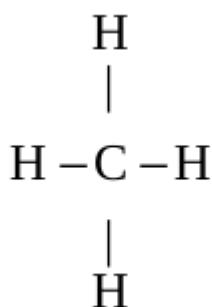
Carbon is a component in a variety of compounds. The very high ability for catenation and its ability to form different types of chemical bonds with other elements make it different from other elements.

Organic chemistry is the branch of chemistry that deals with the carbon compounds.

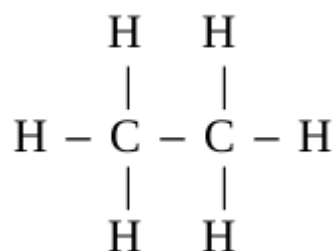
Hydrocarbons

They are compounds containing carbon and hydrogen only.

Ex:



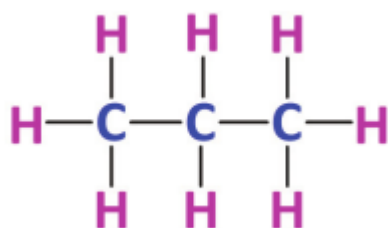
Mathane



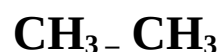
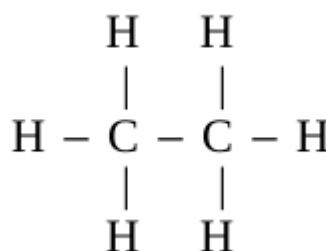
Ethane

Condensed formula.

The structure of compounds can be written in condensed way which is known as condensed formula.



Propane



Ethane

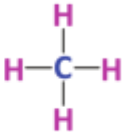
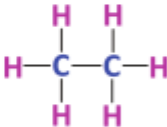
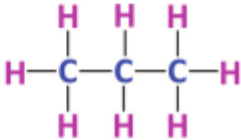
Alkane

The open chain hydrocarbons having only single bond between the carbon atoms are called Alkanes .

Ex: $\text{CH}_3 - \text{CH}_2 - \text{CH}_3$

In alkanes, as all the four valencies of each carbon atom are satisfied by single bonds. They are known as saturated hydrocarbons..

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Number of Carbon atoms	Structure of Alkanes	Condensed formula	Molecular formula
1		CH ₄	CH ₄
2		CH ₃ - CH ₃	C ₂ H ₆
3		CH ₃ - CH ₂ - CH ₃	C ₃ H ₈

Questions

1. What are Hydro carbons ? Give one example ?
2. Complete the table given below.

Number of Carbon atoms	Structure of Alkanes	Condensed formula	Molecular formula
4	CH ₃ - CH ₂ - CH ₂ - CH ₃
5	C ₅ H ₁₂
